



Sizing & Selecting Actuators

Selecting a pneumatic actuator is a three step process done by evaluating the total area of a louver assembly, the total length of actuator rod in that assembly and considering the final orientation of the louver when attached to the cooler.

- Step #1: Calculate the total louver area in square feet (length x width)
- Step #2: Calculate the total linear (running) feet of actuator rod
- Step #3: Apply the appropriate orientation factor to actuator capacities shown below and make the selection that satisfies both area and actuator rod calculations.

IMPORTANT NOTES:

1. Orientation Adjustments (except for 740 Series louvers)
 - a. Horizontal louvers: 1.0 multiplier on actuator area and actuator rod capacities
 - b. Vertical louvers: .75 multiplier on actuator area and actuator rod capacities
2. For 740 Series louvers
 - a. Maximum allowable total torque tube length is 20 feet
 - b. Maximum allowable distance from actuator to end of louver is 12 feet
 - c. Maximum allowable blade length is 36 inches

Excluding 740 Series louvers, maximum allowable blade length is 66". Using that as a guide, simple actuator rod estimations are shown:

Total Louver Width	Number of Actuator Rods
0" to 5'-6"	1
5'-7" to 11'-0"	2
11'-1" to 16'-6"	3
16'-7" to 22'-0"	4

Number of actuator rods x louver length (or height) = Total linear feet of actuator rod

	Max. Capacity Louver Area	Max. Capacity Actuator Rod
Johnson:	Ft²	Lin. Ft.
D-4073 (-4 w/positioner, -5 w/o positioner) 8-13 psi spring	88 Ft ²	16'
D-3153 (-4 w/positioner, -5 w/o positioner) 8-13 psi spring	187 Ft ²	34'
D3244 (-3 w/positioner, -4 w/o positioner) 8-13 psi spring	291 Ft ²	53'
Fisher:		
Model 656-30	440 Ft ²	80'
Model 656-40	660 Ft ²	120'
Durastroke:		
Model 60, 6-30 psi spring	75 Ft ²	25'
Model 65, 3-15 psi spring	37 Ft ²	12'
Model 120, 6-30 spring	150 Ft ²	50'
Model 125, 3-15 spring	75 Ft ²	25'
Model 1000 – 2000	660 Ft ²	120'